

## REMARKS

Claims 54 and 57-91 are pending, and new claims 92-101 have been added. By this amendment, claims 55 and 56 have been cancelled without prejudice or disclaimer.

Applicants have amended claims 54, 68, 77, 84, 90, and 91 to replace the phrases “fragments or derivatives” or “fragment or derivative” with “Fab-, F(ab)’<sub>2</sub>, Fv-, or scFv-fragments” or “a Fab-, F(ab)’<sub>2</sub>, Fv-, or scFv-fragment,” respectively. These amendments are supported at least by page 7, lines 23-37, of the specification.

Applicants have also amended claim 54 to recite “bacterium belonging to the genus *Helicobacter*” and “which epitope is the epitope of an antigen selected from the group consisting of: a urease, a heat shock protein, an alkylhydroperoxide-reductase, a 20kDa-protein, a 16.9kDa-protein and a 33.8kDa-protein.” These amendments are supported at least by original claims 1, 3, and 5; and page 11, lines 29-33, of the specification.

In addition, Applicants have amended claim 57 to remove the phrase “the species *Helicobacter hepaticus*, the species *Mycobacterium tuberculosis*, or the species *Campylobacter pylori*,” and claim 58 to remove the phrase “the epitope of the second antigen is an epitope selected from the group consisting of: a heat shock protein, an alkylhydroperoxide-reductase, a 20kDa-protein (3-dehydro-quinase type II), a 16.9kDa-protein (neutrophilactivating protein) and a 33.8kDa-protein (fructose-bisphosphate-aldolase.” These amendments are supported at least by original claims 4 and 5.

Furthermore, Applicants have added new claims 92-101. These claims are supported at least by original claims 1-8, 14-17, 34, and 41; page 4, line 34, to page 5, line 2, of the specification; page 7, lines 23-37, of the specification; and page 11, lines 29-33, of the specification.

Applicants respectfully submit that the amendments to the claims do not introduce new matter. Accordingly, entry of these amendments is respectfully requested.

### Rejection Under 35 U.S.C. 112, First Paragraph

In the Final Office Action dated September 8, 2005, the Examiner rejects claims 54-91 as being not enabled with respect to the use of antibody fragments or derivatives. For the reasons set forth on pages 9-17 of Applicants’ response filed November 2, 2004, Applicants respectfully traverse the Examiner’s rejection. However, in order to expedite the prosecution of this application, Applicants have amended claims 54, 68, 77, 84, 90, and 91 to replace the phrases “fragments or derivatives” or “fragment or derivative” with “Fab-, F(ab)’<sub>2</sub>, Fv-, or

scFv-fragments” or “a Fab-, F(ab)<sub>2</sub>, Fv-, or scFv-fragment,” respectively. Applicants reserve the right to pursue the use of other antibody fragments or derivatives in a continuation/divisional application(s). Applicants respectfully submit that these amendments obviate the Examiner’s rejection. Accordingly, reconsideration and withdrawal of the §112, first paragraph, rejection are respectfully requested.

**Rejection of Claims 54-91 Under 35 U.S.C. 112, Second Paragraph**

In the Final Office Action dated September 8, 2005, the Examiner also rejects claims 54-91 as failing to comply with the written description requirement for reciting the term “epitope.” In addition, the Examiner rejects claims 54-91 as being indefinite for reciting the term “derivative.” For the reasons set forth on pages 9-18 of Applicants’ response filed November 2, 2004, Applicants respectfully traverse the Examiner’s rejections. However, as noted, Applicants have amended claims 54, 68, 77, 84, 90, and 91 to expedite the prosecution of this application. Applicants respectfully submit that these amendments overcome the Examiner’s rejections. Reconsideration and withdrawal of the §112, second paragraph, rejections are therefore respectfully requested.

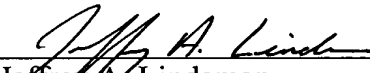
### CONCLUSION

For at least the reasons set forth above, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance of the claims are earnestly solicited. Although Applicant believes that the fees paid herewith are correct, the Commissioner is hereby authorized to charge any payment deficiency or credit any overpayment to Deposit Account No. 19-2380 referring to attorney docket number 032034-001000.

Should the Examiner have any questions that would facilitate further prosecution or allowance of this case, the Examiner is invited to contact Applicants' representative designated below.

Respectfully submitted,

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